

DEPARTMENT of ENVIRONMENTAL SERVICES
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: MEETINGHOUSE POND	Lake Area (ha):	24.04
Town: MARLBORO	Maximum depth (m):	3.0
County: Cheshire	Mean depth (m):	1.3
River Basin: Connecticut	Volume (m ³):	318000
Latitude: 42°53' N	Relative depth:	0.6
Longitude: 72°11' W	Shore configuration:	1.09
Elevation (ft): 1096	Areal water load (m/yr):	4.24
Shore length (m): 1900	Flushing rate (yr ⁻¹):	3.20
Watershed area (ha): 194.2	P retention coeff.:	0.69
% watershed ponded: 0.0	Lake type:	natural w/dam

BIOLOGICAL:

1 March 1988

19 August 1987

DOM. PHYTOPLANKTON (% TOTAL) #1	ASTERIONELLA 75%	DINOBRYON 75%
#2		
#3		
PHYTOPLANKTON ABUNDANCE (cells/mL)		2745.0
CHLOROPHYLL-A (µg/L)		5.09
DOM. ZOOPLANKTON (% TOTAL) #1	KERATELLA 70%	KELLICOTTIA 34%
#2	CILIATE SPP. 24%	NAUPLII LARVAE 22%
#3		KERATELLA 15%
ROTIFERS/LITER	177	227
MICROCRUSTACEA/LITER	2	144
ZOOPLANKTON ABUNDANCE (#/L)	235	371
VASCULAR PLANT ABUNDANCE		Abundant
SECCHI DISK TRANSPARENCY (m)		2.4
BOTTOM DISSOLVED OXYGEN (mg/L)	1.3	0.2
BACTERIA (fecal col., #/100 ml) #1		
#2		
#3		

SUMMER THERMAL STRATIFICATION:

weakly stratified

Depth of thermocline (m): 1.6
Hypolimnion volume (m³): None

CHEMICAL:

Lake: MEETINGHOUSE POND

Town: MARLBORO

	1 March 1988		19 August 1987		
DEPTH (m)	1.0	2.0	1.0		2.0
pH (units)	5.0	5.1	5.5		5.3
A.N.C. (Alkalinity)	0.7	1.1	0.7		0.4
NITRATE NITROGEN	0.10	0.06	< 0.05		< 0.05
TOTAL KJELDAHL NITROGEN	0.63	0.58	0.30		0.32
TOTAL PHOSPHORUS	0.001	0.011	0.013		0.019
CONDUCTIVITY (μ mhos/cm)	29.0	26.0	18.9		18.9
APPARENT COLOR (cpu)	88	96	52		53
MAGNESIUM			0.31		
CALCIUM			1.0		
SODIUM			1.3		
POTASSIUM			0.30		
CHLORIDE	< 2	2	< 2		< 2
SULFATE	5	4	4		4
TN : TP	730	58	23		17
CALCITE SATURATION INDEX			6.0		

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1987

D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
5	2	3	1	11	Eutro.

COMMENTS:

1. A good launch site was present with adequate parking.
2. Whole-water phytoplankton was 70% bluegreen and 20% greens. Merismopedia (70%) and tiny green flagellates (20%) were the dominant genera.
3. No cottages were located along the shoreline.
4. Water was tea colored.

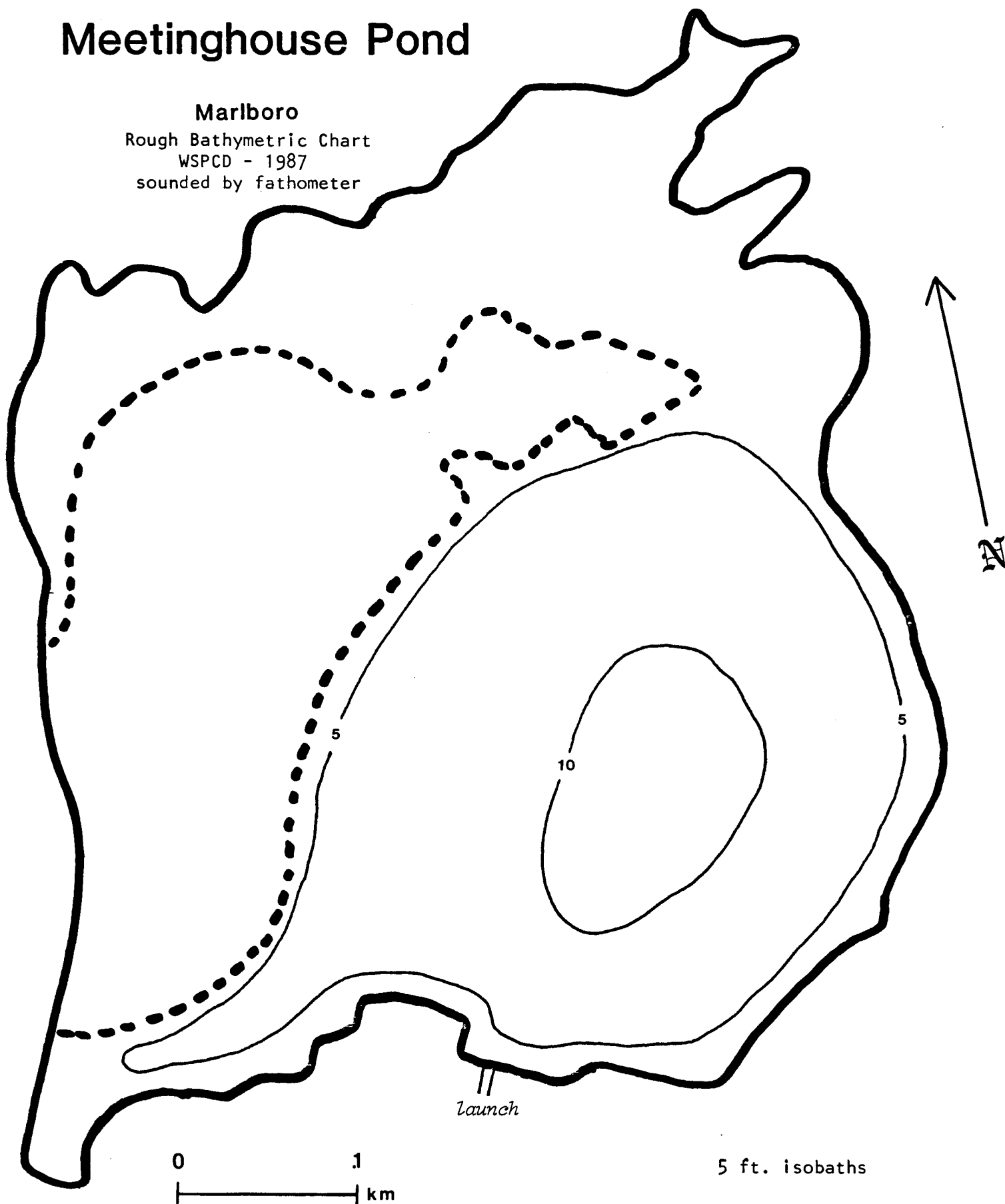
Meetinghouse Pond

Marlboro

Rough Bathymetric Chart

WSPCD - 1987

sounded by fathometer



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TOWN: MARLBORO
WEATHER: CLEAR - WARM, BREEZY

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SECCHI DISK (m):    2.4          COMMENTS:
BOTTOM DEPTH (m):   3.0
TIME: 1213
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*Dissolved oxygen values are in mg/L

Meetinghouse Pond

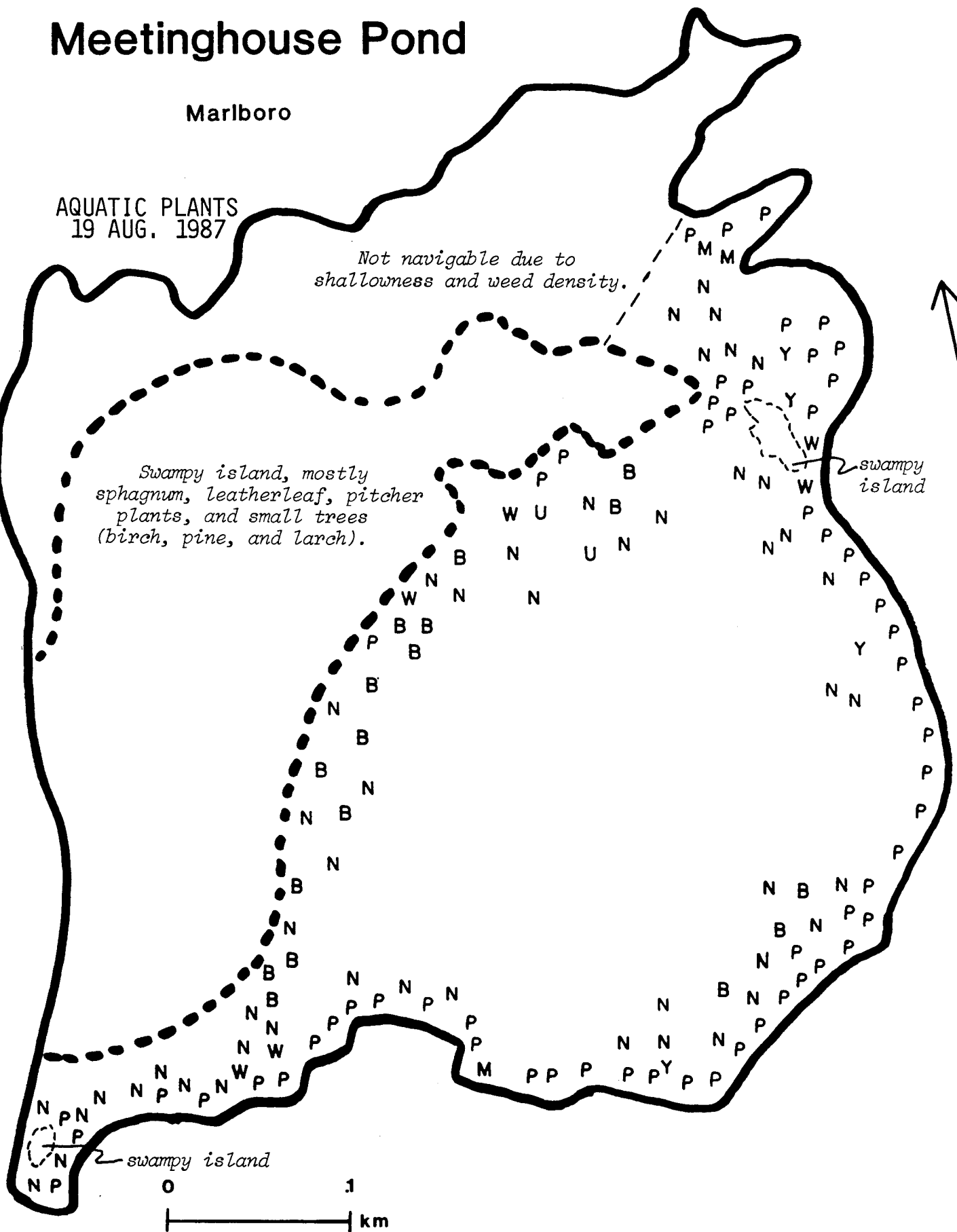
Marlboro

AQUATIC PLANTS
19 AUG. 1987

*Not navigable due to
shallowness and weed density.*

*Swampy island, mostly
sphagnum, leatherleaf, pitcher
plants, and small trees
(birch, pine, and larch).*

*swampy
island*



[illegible]